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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/262,657 03/04/99 YAMAZAKI

S SEL-126

EXAMINER

MMC2/0104

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SUITE 2850
CHICAGO IL 60606

PRENTY, M

ART UNIT

PAPER NUMBER

2822

DATE MAILED:

01/04/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.
09/262,657

Applicant(s)
YAMAZAKI et al.

Examiner
Prenty

Group Art Unit
2822



☒ Responsive to communication(s) filed on Dec 18, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-29 is/are pending in the application.

Of the above, claim(s) 16-29 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-15 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☒ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4, 7

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

This Office Action is in response to the election filed December 18, 2000.

Applicant's election of Group I, claims 1-15, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse. See MPEP 818.03(a).

Claims 16-29 are withdrawn from further consideration by the examiner as being drawn to a non-elected invention. 37 CFR 1.142(b).

Claims 1-6 and 10-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki et al. (United States Patent 6,160,271) together with King et al. (the *IEEE Transactions on Electron Devices* article submitted in the Information Disclosure Statement filed October 10, 2000). Specifically, the difference between Yamazaki et al. (see the entire patent, particularly Fig. 3C) and the set of rejected claims is their complementary driver circuit transistors are formed in polycrystalline silicon and polycrystalline silicon germanium, respectively. King et al. teach that it is advantageous to form complementary driver circuit transistors in polycrystalline silicon-germanium rather than polycrystalline silicon. It would have been obvious to one skilled in this art to advantageously form Yamazaki et al.'s complementary driver circuit transistors in polycrystalline silicon-germanium rather than polycrystalline silicon, as taught by King et al. Claims 1-6 and 10-15 are thus rejected under 35 U.S.C. §103(a) as being unpatentable over Yamazaki et al. together with King et al.

Claims 1-3, 7-9 and 13-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Zhang et al. (United States Patent 5,648,277 cited in the Information Disclosure Statement filed March 4, 1999) together with King et al. (the *IEEE Transactions on Electron Devices* article submitted in the Information Disclosure Statement filed October 10, 2000). Specifically, the difference between Zhang et al.

(see its Fig. 6 disclosure in particular) and the set of rejected claims is their complementary driver circuit transistors are formed in polycrystalline silicon and polycrystalline silicon germanium, respectively. King et al. teach that it is advantageous to form complementary driver circuit transistors in polycrystalline silicon-germanium rather than polycrystalline silicon. It would have been obvious to one skilled in this art to advantageously form Zhang et al.'s complementary driver circuit transistors in polycrystalline silicon-germanium rather than polycrystalline silicon, as taught by King et al. Claims 1-3, 7-9 and 13-15 are thus rejected under 35 U.S.C. §103(a) as being unpatentable over Zhang et al. together with King et al.

Claims 10-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Zhang et al. (United States Patent 5,648,277 cited in the Information Disclosure Statement filed March 4, 1999) together with King et al. (the *IEEE Transactions on Electron Devices* article submitted in the Information Disclosure Statement filed October 10, 2000) and Ohtani et al. (United States Patent 5,643,826 submitted in the Information Disclosure Statements filed March 4, 1999 and October 10, 2000). Specifically, the difference between the obvious Zhang et al. / King et al. semiconductor device (see above) and the semiconductor device recited in the set of rejected claims is the latter's first active layer further comprises nickel. Ohtani et al. teach adding nickel to amorphous thin films to accelerate crystallization (see the entire patent). It would have been further obvious to one skilled in this art to add nickel to the initially amorphous first active layer of the obvious Zhang et al. / King et al. semiconductor device (see Zhang et al.'s first active layer 1203, for example) to accelerate its crystallization, as taught by Ohtani et al. Claims 10-12 are thus rejected under 35 U.S.C. §103(a) as being unpatentable over Zhang et al. together with King et al. and Ohtani et al.

Claims 1-6 and 13-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Inoue et al. (United States Patent 6,153,893) together with King et al. (the *IEEE Transactions on Electron Devices* article submitted in the Information Disclosure Statement filed October 10, 2000). Specifically, the difference between Inoue et al. (see its Fig. 2 disclosure in particular) and the set of rejected claims is their complementary driver circuit transistors are formed in polycrystalline silicon and polycrystalline silicon germanium, respectively. King et al. teach that it is advantageous to form complementary driver circuit transistors in polycrystalline silicon-germanium rather than polycrystalline silicon. It would have been obvious to one skilled in this art to advantageously form Inoue et al.'s complementary driver circuit transistors in polycrystalline silicon-germanium rather than polycrystalline silicon, as taught by King et al. Claims 1-6 and 13-15 are thus rejected under 35 U.S.C. §103(a) as being unpatentable over Inoue et al. together with King et al.

Claims 10-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Inoue et al. (United States Patent 6,153,893) together with King et al. (the *IEEE Transactions on Electron Devices* article submitted in the Information Disclosure Statement filed October 10, 2000) and Ohtani et al. (United States Patent 5,643,826 submitted in the Information Disclosure Statements filed March 4, 1999 and October 10, 2000). Specifically, the difference between the obvious Inoue et al. / King et al. semiconductor device (see above) and the semiconductor device recited in the set of rejected claims is the latter's first active layer further comprises nickel. Ohtani et al. teach adding nickel to amorphous thin films to accelerate crystallization (see the entire patent). It would have been further obvious to one skilled in this art to add nickel to the initially amorphous first active layer of the obvious Inoue et al. / King et al. semiconductor device to accelerate its crystallization, as taught by Ohtani et al.

Claims 10-12 are thus rejected under 35 U.S.C. §103(a) as being unpatentable over Inoue et al. together with King et al. and Ohtani et al.

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